

The Rising Cougar Project Pictures and Information



Scattered large old ponderosa pine trees like this one answer many of the questions about what might have been a natural condition on this site in the past. This tree was born in an open sunny condition since ponderosa pine biologically cannot establish dominance in the shade of a timber canopy. They require full sunlight and are well adapted to fire. The fire scars at the base of the tree tell of several low intensity fires that maintained the open sunny condition. These were not high intensity crown fires or they would have killed the tree. Each one of these fires reduced the fuels on the site and killed the smaller younger trees that might have competed with it for sunlight, water and nutrients allowing it to flourish and remain dominant.

The surrounding trees in the photo do not have fire scars and are much younger, shade-tolerant Douglas-fir and grand fir that established themselves during the last 80 years, a time when there were no fires on this site. This coincides with the time that there was a vigorous effort by the Forest Service and others to put out all fires when they were small. Now these other trees are putting stress on the pine as they compete for sunlight, nutrients, and water.



The life of these old veteran pines was much the same as those in the previous photo except these trees have grown to this dominant size on a much drier site with very shallow soil depth. Ponderosa pine trees are very adapted to this type of growing site. They are now being threatened by the surrounding mass of mistletoe-infected Douglas-fir. Not only are the fir competing for sunlight, nutrients, and water, they are also providing a “ladder” of fuels into the crowns of the old pines. Should there be a wildfire under these conditions, it would most likely be carried into the crowns of the trees and would kill the old ponderosa pines, which survived numerous ground fires in the past. To “let nature take its course” at this point would certainly be the demise of these grand old trees.



This photo shows the conditions immediately down hill from the photo above. This is a crown fire waiting to happen. This type of thick canopy has shaded out the grasses, shrubs and forbs that would have naturally occurred in the more open conditions of the past. Elk and deer must look elsewhere for their food.

Unless the smaller, mistletoe-infected firs are removed, they will surely provide the fuel conditions or biological stress to eventually kill these old pines. There is also a noticeable lack of browse plants under this thick canopy. When answering the question “what is a natural and desirable condition here?” it appears that an open stand of scattered old ponderosa pines and clumps of healthy fir with the accompanying grasses, shrubs, and forbs would be preferable to a blackened landscape created by a crown fire or the existing fuel laden condition waiting for that fire.



Here’s an example of what the areas shown previously might look like after the proposed treatment of helicopter logging, slashing, and underburning. Burning was completed on this site three years prior to this photo. The fuels have been reduced significantly and lots of new browse has sprouted. The ponderosa pines and other trees have plenty of sunlight and much less competition for nutrients and water. This photo was taken in the West Gold Creek drainage near Lakeview, ID, in the spring of 2003.



This photo illustrates how lack of fire over time has resulted in fuel accumulation of decadent brush. This site once provided browse but the large woody stems now are not very palatable for elk and deer.

Creating openings and burning promotes the sprouting of many plants that haven't flourished for many years under a thick dark tree canopy. Some of these plants, like the Red Stem Ceanothus bushes around the yellow hard hat in this photo, are the prime winter range food of elk and deer.



In stark contrast to the top photo, this monitoring photo from the Kirbys project shows the results of opening up the canopy and using prescribed fire to promote new succulent browse for the elk and deer. Since there were few ponderosa pines on this site, an open mosaic of the healthiest Douglas-fir, including large groups or islands of leave trees, was created.



This photo illustrates yet another set of conditions within the Rising Cougar Project area. The amount of discolored tree crowns from dead and dying Douglas-fir indicate that the stand has begun to “*fall apart*” creating heavy fuel loadings of dry dead wood. This is generally caused by combinations of dwarf mistletoe infections, various strains of root diseases, and attacks by Douglas-fir bark beetles.

Here is a buildup of dead dry fuel caused by dwarf mistletoe in Douglas fir trees. This much fuel can contribute greatly to a wildfire becoming very large very quickly.





Large fires can develop huge convection columns that can carry burning embers well away from the fire itself. Fighting fire is extremely dangerous under these conditions as the embers can start spot fires behind fire fighters trapping them between two or more fires. These burning embers can also find their way to rooftops, wooden decks, eaves, or rain gutters full of pine needles or forest litter. This fire occurred near the town of Sula Montana during the summer of 2000 and the town was evacuated. Although we can't prevent fires from starting, we can have a better chance of attacking and controlling a fire more quickly and safely with reduced forest fuels.





Here is a prescribed fire in progress on the nearby Kirbys project. Fuels were first reduced by thinning, removing trees (with helicopter logging), and/or slashing small trees and brush (getting them down on the ground). Burning was done during cooler, more humid weather. A prescribed fire is started at the top of a slope and gradually lit down the slope so it will “burn back up into itself.” In direct contrast, mother nature tends to burn during the hottest, driest, and windy times of the year and will burn into new fuel as it travels with the wind or slope creating more intense fire as it goes.



This is a photo of the same area as the previous one taken from a different angle. This is one example among many of a completed project that illustrates what is meant by an “irregular open mosaic.” Each site on the hill is treated according to its specific needs based on the overall objectives of the project. All of the helicopter logging and prescribed burning has been completed on this hillside above East Hope. The more open area on the right side of the ridge in the foreground is a naturally open, rock outcrop.